

**Amendments to the Drawings:**

The attached replacement drawing sheets make changes to Figs. 1, 15A and 15B and replaces the original sheets with replacement sheets.

Attachment: Replacement Sheets

**REMARKS**

Claims 1, 5, 7-16 and 18-21 are pending in this application. By this Amendment, claims 1, 5, 7-9, 11-16 and 18-21 are amended and claims 2-4, 6, 17 and 22 are canceled without prejudice or disclaimer. The claims have been amended to correct for antecedent basis and to correct minor informalities and claims 1 and 12 have been amended to incorporate the subject matter of claims 2-4, 15 and 17. Additionally, specific support for the amended claims may be found as follows. Support for claims 1, 11, 12 and 15 may be found, at least, in paragraph [0073] of the specification. Support for claims 5, 19 and 20 may be found, at least, in paragraphs [0093] and [0094] of the specification. Finally, support for claims 10 and 21 may be found, at least, in paragraph [0112]. No new matter is added.

**I. Objections to the Specification**

The Office Action objects to the abstract for failing to commence on a separate sheet. A replacement abstract, on a separate sheet, is attached to this Amendment. Accordingly, withdrawal of the objection is respectfully requested.

The specification is objected to for several alleged errors and inconsistencies. The specification and figures have been amended to remedy the alleged inconsistencies and errors in the specification. Specifically, paragraph [0046] has been amended to refer to collimating lens 131. Figure 1 has been amended to replace element designation 154 with 142. Finally, Figs. 15A and 15B have been amended to provide additional identifying numerals. Thus, withdrawal of the objections to the specification is respectfully requested.

**II. Rejections of the Claims**

Claims 1-4, 6-7, 9, 12, 13, 15, 17 and 22 are rejected under 35 U.S.C. §102(b) over U.S. Patent Pub. No. 2003/026457 to Nahum. Claims 5, 8, 11, 16 and 18-20 are rejected under 35 U.S.C. §103(a) over Nahum. Claims 10 and 21 are rejected under 35 U.S.C.

§103(a) over Nahum in view of U.S. Patent Pub. No. 2003/0019933 to Tsikos et al.

("Tsikos"). These rejections are respectfully traversed.

**A. Rejection of Claims 1 and 12**

Because the claims have been extensively amended, and the subject matter of several claims have been incorporated into others, the rejections of independent claims 1 and 12 will be addressed in the context of the rejection of claims 2-4, 15 and 17 as well.

Nahum does not disclose the concept of a pixel address window, as recited in claims 1 and 12, when that term is interpreted in light of the specification. The specification states:

[0002] ...The subset of pixels in the area of the detector having the best or sufficient output characteristics with respect to providing an accurate correlation measurement, may be determined and selected as the operative *pixel address window*.

[0003] In accordance with another aspect of the invention, *the "pixel correlation area" may be identified as an area smaller than the pixel address window*, which defines a number of pixel elements that will overlap in two successive correlation images and participate in the correlation calculation.

*The correlation calculation may be performed using the output from the pixels in the correlation area*, and the peak of the resulting correlation value curve may be located with subpixel precision to give a high resolution interpolated displacement measurement. (*Italics added.*)

When interpreted in light of the present specification, Nahum may be interpreted as teaching a "correlation area", but Nahum suggests no teaching related to establishing a pixel address window which is a subset of pixels in the area of the detector having the best or sufficient output characteristics with respect to providing an accurate correlation

measurement, as disclosed in the present application. As such, Nahum does not disclose or suggest the features of claims 1 and 12, as amended.

**B. Rejection of Claim 15**

Claim 15 recites that the step of determining the pixel address window is accomplished by "determining a figure of merit indicative of the best or sufficient image intensity and uniformity characteristics." This feature is not disclosed in Nahum.

Applicants respectfully submit that the Office Action improperly equates "peak function" characteristics, and minimum and maximum values with the recited features. Nahum discloses that peak function characteristics, and minimum and maximum values are correlation function and/or correlation function value point characteristics, with intensity and uniformity characteristics. See Nahum ([0165]). However, the recited intensity and uniformity characteristics are defined in the instant specification as being characteristics of pixels. As such, Nahum does not disclose determining a figure of merit indicative of the best or sufficient image intensity and uniformity characteristics, as recited in claim 15.

Furthermore, Nahum suggests no teaching related to establishing a pixel address window, as discussed above. The pixel address window is a subset of pixels in the area of the detector having the best or sufficient output characteristics with respect to providing an accurate correlation measurement. Thus, contrary to the Examiner's assertion, Nahum cannot disclose a relationship between a pixel correlation area and a subset of pixels in the area of the detector having the best or sufficient output characteristics because Nahum never discloses the pixel address window.

**C. Rejection of Claim 5, 19 and 20**

Nahum does not disclose an aperture which blocks light in the beam, as recited in claims 5, 19 and 20. Claim 5, 19 and 20, as amended, more clearly recites the intended aperture configuration. For example, claim 5 now recites that "the illumination beam

aperture is configured to block light from a beam profile output by the light emitting element such that only light from a central portion of the beam profile output by the light emitting element is included in the beam directed onto the target surface." Nahum does not disclose these features.

For at least the above reasons the rejections of claims 1 5, 12, 15, 19 and 20 lack merit. According, withdrawal of the rejection of independent claims 1 and 12, and claims 5, 7-11, 13-16 and 18-21 depending therefrom, is respectfully requested.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the claims are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

  
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TJP:MKW/jfb

Attachment:

Petition for Extension of Time  
Two Replacement Sheets (Figs. 1, 15A and 15B)  
Substitute Abstract

Date: September 11, 2008

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